

Benny E. Hunt
DEPUTY OIL & GAS INSPECTOR

AUG 09 1999

Approved

Jicarilla Apache Tribe
Environmental Protection Office
P.O. Box 507
Dulce, New Mexico 87528

OK
RECEIVED
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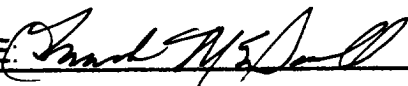
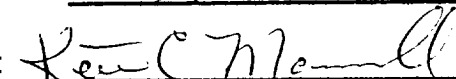
OIL CON. DIV.
DIST. 3

Pit Remediation and Closure Report

Operator:	Taurus Exploration U.S.A., Inc		Telephone:	(505) 325-6800	
Address:	2198 Bloomfield Hwy, Farmington, NM 87401				
Facility or Well Name:	Jicarilla 94-5A				
Location:	Unit or Qtr/QTR Sec "C" Sec 23, T 27 N, R 3 W		County	Rio Arriba	
Pit Type:	Separator:	Dehydrator:	Other: X - Abandoned Separator Pit		
Land Type:	Range				
Pit Location:	Pit dimensions: length: 45 ft width: 50 ft depth: 13 ft				
(Attach Diagram)					
	Reference:	wellhead: X other:			
	Footage from reference:	90 feet			
	Direction from reference:	10	Degrees	East	North
					of
				X West	South X
Depth To Groundwater:	Less than 50 feet		(20 points)		
(Vertical distance from	50 feet to 99 feet		(10 points)		
contaminants to seasonal	Greater than 100 feet		(0 points)		0
high water elevations of					
groundwater)					
Distance to an Ephemeral Stream:	Less than 100 feet		(10 points)		
(Downgradient dry wash greater than	Greater than 100 feet		(0 points)		0
ten feet in width)					
Distance to Nearest Lake, Playa, or Watering	Less than 100 feet		(10 points)		
Pond: (Downgradient lakes, playas, and	Greater Than 100 feet		(0 points)		0
livestock or wildlife watering ponds)					
Wellhead Protection Area:	Yes		(20 points)		
(Less than 200 feet from a private	No		(0 points)		0
domestic water source, or less than					
1000 feet from all other water sources)					
Distance To Surface Water:	Less than 100 feet		(20 points)		
(Horizontal distance to perennial	100 feet to 1000 feet		(10 points)		
lakes, ponds, rivers, streams, creeks,	Greater than 1000 feet		(0 points)		0
irrigation canals and ditches.)					
RANKING SCORE (TOTAL SCORE):					0

Jicarilla Apache Tribe
Environmental Protection Office
P.O. Box 507
Dulce, New Mexico 87528

Pit Remediation and Closure Report

Date Remediation Started: <u>7/24/98</u>		Date Completed <u>7/24/98</u>	
Remediation Method: (Check all appropriate sections)	Excavation: <u>X</u>	Approx. cubic yds <u>1037</u>	
	Landfarmed: <u>X</u>	Insitu Bioremediation: _____	
	Other: _____		
Remediation Location: (I.e. landfarmed on site, name and location of off site location)	On-site: <u>X</u>	Off-site: _____	
General Description of Remedial Action: <u>Soil was excavated and landfarmed on location.</u>			
Groundwater Encountered: No: <u>X</u> Yes: _____		Depth: _____	
Final Pit Closure Sampling: (If multiple samples, attach sample results and diagram of sample locations and depths.)	Sample location: <u>Pit bottom @ 13 feet below surface. Pit walls were analyzed for Headspace (see attachment).</u>		
	Sample depth: <u>13 feet</u>	Sample time: _____	
	Sample date: <u>7/24/98</u>	Sample time: <u>1300</u>	
Sample Results:			
Soil:		Water:	
Benzene (ppm)	<u>ND</u>	Benzene (ppb)	_____
Total BTEX (ppm)	<u>ND</u>	Toluene (ppb)	_____
Field Headspace (ppm)	<u>190</u>	Ethylbenzene (ppb)	_____
TPH (ppm)	<u>216</u>	Total Xylenes (ppb)	_____
Groundwater Sample: (If yes, attach sample results.)	Yes: _____	No: <u>X</u>	
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF			
DATE: <u>8/25/98</u>		Frank McDonald	
SIGNATURE: 		AND TITLE: <u>Env. Division Manager</u>	
AFTER REVIEW OF THE PIT CLOSURE INFORMATION PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE			
APPROVED: Yes: <u>X</u> No: _____ (Reason) _____			
SIGNED: 		DATE: <u>9-2-98</u>	

Client : Taurus Exploration U.S.A. Inc.

Date Started : July 24, 1998 Date Completed : July 24, 1998

<p>Location : <u>Jicantilla 94 - 5A</u></p> <p>Quad : <u>C</u> Section : <u>23</u></p> <p>Range : <u>3 W</u> Township : <u>27 N</u></p> <p>Pit : <u>Abandoned Separator Pit</u> Reference : <u>90° S 10 W</u> Initial Size : <u>25' x 25' x 2' deep</u> Final Size : <u>45' x 50' x 13' deep</u> Yds. Excavated : <u>1037 cy</u> Depth to Groundwater : <u>>100'</u> Nearest Water Source : <u>>1000'</u> Nearest Surface Water : <u>>1000'</u> Nearest Ephemeral Stream : <u>>1000'</u> EPO Ranking Score : <u>0</u> TPH Closure Standard : <u>5000</u></p> <p>Comments : <u>Top soil - 13' Soil is moist, brown, clay/loam, with visible staining, and a strong hydrocarbon odor.</u> <u>13' Bedrock encountered.</u> <u>Excavation was limited in south and east walls due to location boundary.</u> <u>A sample from the center bottom at 13' was sent to IML for GRO/DRO and BTEX analysis.</u></p>		<p>Overview of Location and Sampling :</p>																																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Sample #</th> <th>Location</th> <th>QVM</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>N. Wall @ 10'</td> <td>45</td> </tr> <tr> <td>2</td> <td>S. Wall @ 10'</td> <td>184</td> </tr> <tr> <td>3</td> <td>E. Wall @ 10'</td> <td>181</td> </tr> <tr> <td>4</td> <td>W. Wall @ 10'</td> <td>93</td> </tr> <tr> <td>5</td> <td>C. Btm @ 13'</td> <td>190</td> </tr> <tr> <td>6</td> <td></td> <td></td> </tr> <tr> <td>7</td> <td></td> <td></td> </tr> <tr> <td>8</td> <td></td> <td></td> </tr> <tr> <td>9</td> <td></td> <td></td> </tr> <tr> <td>10</td> <td></td> <td></td> </tr> <tr> <td>11</td> <td></td> <td></td> </tr> <tr> <td>12</td> <td></td> <td></td> </tr> </tbody> </table>		Sample #	Location	QVM	1	N. Wall @ 10'	45	2	S. Wall @ 10'	184	3	E. Wall @ 10'	181	4	W. Wall @ 10'	93	5	C. Btm @ 13'	190	6			7			8			9			10			11			12			<p>Pit Profile : North to South :</p>	
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<p>Pit Profile : East to West :</p>		<p>Pit Profile : East to West :</p>																																								

Environmental Specialist : VC

Cinarron Oilfield Services

GASOLINE RANGE ORGANICS - GRO

Taurus Exploration U.S.A., Inc.

Project ID:	Jicarilla 94-5A Sep. Pit	Report Date:	08/05/98
Sample ID:	C. Bottom @ 13'	Date Sampled:	07/24/98
Lab ID:	0398G04195	Date Received:	07/27/98
Sample Matrix:	Soil	Date Analyzed:	07/29/98
Condition:	Cool/Intact		

TPH GAS-RANGE (MOD EPA 8015)	RESULT	DETECTION LIMIT
Gasoline-Range Petroleum Hydrocarbons	178	5.0 mg/kg
Total Volatile Petroleum Hydrocarbons	205	5.0 mg/kg

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:


Reported By:


Reviewed By:

DIESEL RANGE ORGANICS - DRO

Taurus Exploration U.S.A., Inc.


Project ID:	Jicarilla 94-5A Sep. Pit	Report Date:	08/05/98
Sample ID:	C. Bottom @ 13'	Date Sampled:	07/24/98
Lab ID:	0398G04195	Date Received:	07/27/98
Sample Matrix:	Soil	Date Analyzed:	07/29/98
Condition:	Cool/Intact		

TPH DIESEL-RANGE (MOD EPA 8015)	RESULT	DETECTION LIMIT
Diesel-Range Petroleum Hydrocarbons	38	5.0 mg/kg

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:



Reported By:



Reviewed By:

VOLATILE AROMATIC HYDROCARBONS**Taurus Exploration U.S.A., Inc.**

Project ID:	Jicarilla 94-5A Sep. Pit	Report Date:	08/05/98
Sample ID:	C. Bottom @ 13'	Date Sampled:	07/24/98
Lab ID:	0398G04195	Time Sampled:	1:00
Sample Matrix:	Soil	Date Received:	07/27/98
Condition:	Cool/Intact	Date Extracted:	NA
		Date Analyzed:	07/29/98

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	ND	10.0
Toluene	ND	50.0
Ethylbenzene	ND	50.0
m,p-Xylenes	ND	50.0
o-Xylene	ND	50.0

ND - Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Bromofluorobenzene	N/A	70%-130%

Reference: Method 5030, Purge and Trap; Method 8021B, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Revision 2, December , 1996.

Comments: N/A=Data not available.

Analyst

Review



CHAIN OF CUSTODY RECORD

[illegible]

JICARILLA APACHE TRIBE
ENVIRONMENTAL PROTECTION OFFICE
P.O. BOX 507
DULCE, NEW MEXICO 87528

ON-SITE SOIL REMEDIATION REPORT

Operator: Taurus Exploration USA Inc. Telephone: (505) 325 - 6800
Address: 2198 Bloomfield Hwy, Farmington N.M. 87401
Facility or Well Name: Jicarilla 94-5A
Location: Unit or Qtr/Qtr Sec C Sec 23 T 27 N R 3 W County Rio Arriba
Land Type: Range

Date Remediation Started: July 24, 1998 Date Completed: November 12, 1998
Remediation Method: Landfarmed X Approx. cubic yards 1037
Composted _____
Other _____

Depth to Groundwater: (pts) 0
Distance to an Ephemeral Stream (pts) 0
Distance to Nearest Lake, Playa, or Watering Pond (pts) 0
Wellhead Protection Area (pts) 0
Distance to Surface Water (pts) 0

RANKING SCORE
(TOTAL POINTS): 0

Final Closure Sampling:

Sampling Date: 11/12/98 Time: 0930
Sample Results:
Field Headspace (ppm) 12.7
TPH (ppm) <10 Method 8015
Other: _____

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE: 12/9/98 PRINTED NAME FRANK MCDONALD
SIGNATURE [Signature] AND TITLE ENV. DIVISION MANAGER

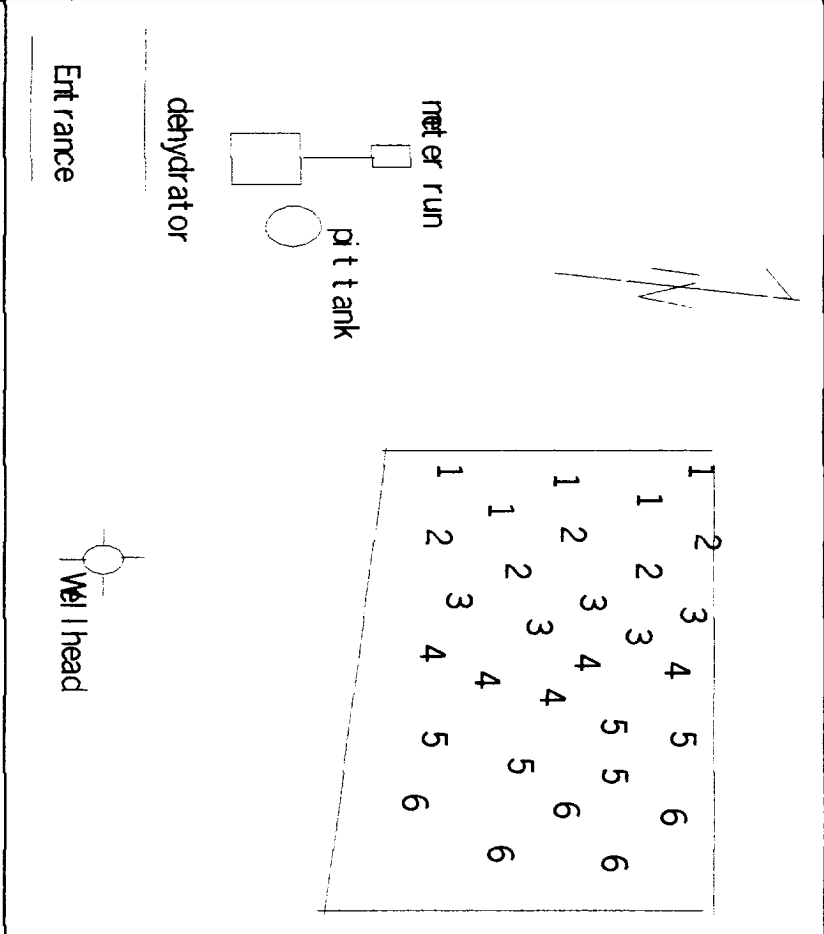
AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION. ON-SITE SOIL REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO _____ (REASON) use as Backfill

SIGNED: [Signature] DATE: 12-28-98

Client : Taurus Exploration USA Inc.

Date Started : July 24, 199 Date Completed : November 12, 1998

Location : <u>Jicarilla 94-5A</u>		Overview of Landfarm and Sampling :																																						
Quad : <u>C</u>	Section : <u>23</u>																																							
Township: <u>27 N</u>	Range: <u>3 W</u>																																							
Pit : <u>Separator</u>																																								
Reference <u>80' N 20 E</u>																																								
Size : <u>200' x 150' x 1' deep</u>	<table border="1"><thead><tr><th>Sample #</th><th>Location</th><th>OV</th></tr></thead><tbody><tr><td>1</td><td>Comp 1</td><td>0.9</td></tr><tr><td>2</td><td>Comp 2</td><td>3.9</td></tr><tr><td>3</td><td>Comp 3</td><td>0.1</td></tr><tr><td>4</td><td>Comp 4</td><td>5.1</td></tr><tr><td>5</td><td>Comp 5</td><td>2.3</td></tr><tr><td>6</td><td>Comp 6</td><td>12.7</td></tr><tr><td>7</td><td></td><td></td></tr><tr><td>8</td><td></td><td></td></tr><tr><td>9</td><td></td><td></td></tr><tr><td>10</td><td></td><td></td></tr><tr><td>11</td><td></td><td></td></tr><tr><td>12</td><td></td><td></td></tr></tbody></table>	Sample #	Location	OV	1	Comp 1	0.9	2	Comp 2	3.9	3	Comp 3	0.1	4	Comp 4	5.1	5	Comp 5	2.3	6	Comp 6	12.7	7			8			9			10			11			12		
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12																																								
Yds : <u>1037</u>																																								
6 <u>5</u> - Point Composites																																								
Comments : <u>Soil is moist, brown, clay/loam with no visible staining or detectable hydrocarbon odor.</u>																																								
<u>A sample from composite # 6 was sent to JML for GRO/DRO analysis.</u>																																								
Environmental Specialist : <u>JE</u>																																								

GASOLINE RANGE ORGANICS - GRO**TAURUS EXPLORATION U.S.A., INC.**

Project ID:	Jicarilla 94-5A	Report Date:	11/23/98
Sample ID:	Land Farm Comp. #6	Date Sampled:	11/12/98
Lab ID:	0398G06700	Date Received:	11/16/98
Sample Matrix:	Soil	Date Analyzed:	11/18/98
Condition:	Cool/Intact		

TPH GAS-RANGE (MOD EPA 8015)	RESULT	DETECTION LIMIT
Gasoline-Range Petroleum Hydrocarbons	<5.0	5.0 mg/Kg
Total Purgeable Hydrocarbons	<5.0	5.0 mg/Kg

QUALITY CONTROL - SURROGATE RECOVERY	% RECOVERY	QC LIMITS
Bromofluorobenzene	79%	70-130

ND - Analyte not detected at the stated detection limit.

Reference:**Comments:**Reported By: Reviewed By: 

DIESEL RANGE ORGANICS - DRO**TAURUS EXPLORATION U.S.A., INC.**

Project ID:	Jicarilla 94-5A	Report Date:	11/23/98
Sample ID:	Land Farm Comp. #6	Date Sampled:	11/12/98
Lab ID:	0398G06700	Date Received:	11/16/98
Sample Matrix:	Soil	Date Analyzed:	11/18/98
Condition:	Cool/Intact		

TPH DIESEL RANGE (MOD EPA 8015)	RESULT	DETECTION LIMIT
Diesel-Range Petroleum Hydrocarbons	<5.0	5.0 mg/Kg
Total Extractable Hydrocarbons	<5.0	5.0 mg/Kg

QUALITY CONTROL - SURROGATE RECOVERY	% RECOVERY	QC LIMITS
o-Terphenyl	73%	70-130

ND - Analyte not detected at the stated detection limit.

Reference:**Comments:**Reported By: Reviewed By: 

57670